

CLAIMS

1. A compressed mode outbound propagation path quality information transmitting method comprising:
 - 5 a receiving step of receiving a radio signal;
an outbound propagation path quality information generating step of generating outbound propagation path quality information for each measurement reference period based on a received signal;
 - 10 an extracting step of extracting a control parameter from said received signal;
a timing generating step of calculating a downlink transmission gap interval and uplink transmission gap interval based on the extracted control parameter, and
 - 15 generating timing for transmitting said outbound propagation path quality information when a postulated period for which transmission is assumed of said outbound propagation path quality information generated based on said received signal of said measurement reference period
 - 20 not overlapping calculated said downlink transmission gap interval and a postulated period not overlapping said uplink transmission gap interval first match after said downlink transmission gap interval and said uplink transmission gap interval have both ended; and
 - 25 a transmitting step of transmitting, at said timing generated in said timing generating step, said outbound propagation path quality information generated based on

said received signal of said measurement reference period not overlapping said downlink transmission gap interval and after said downlink transmission gap interval has ended.

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2. The compressed mode outbound propagation path quality information transmitting method according to claim 1, wherein, in said timing generating step, said downlink transmission gap interval and said uplink
10 transmission gap interval are calculated based on extracted said control parameter, said measurement reference periods that do not overlap calculated said downlink transmission gap interval are specified sequentially, and said timing is generated when a
15 postulated period for which transmission of said outbound propagation path quality information generated based on said received signal of said measurement reference period specified sequentially and a postulated period not overlapping said uplink transmission gap interval first
20 match.

3. The compressed mode outbound propagation path quality information transmitting method according to claim 1, wherein a radio signal received in said receiving
25 step is a discontinuously transmitted packet data signal.

4. An outbound propagation path quality information

transmitting apparatus comprising:

a receiving section that receives a compressed mode radio signal;

an outbound propagation path quality information
5 generation section that generates outbound propagation path quality information for each measurement reference period based on a received signal received by said receiving section;

an extraction section that extracts a control
10 parameter from said received signal;

a timing generation section that calculates a downlink transmission gap interval and uplink transmission gap interval based on extracted said control parameter, and generates timing for transmitting said
15 outbound propagation path quality information when a postulated period for which transmission is assumed of said outbound propagation path quality information generated based on said received signal of said measurement reference period not overlapping calculated
20 said downlink transmission gap interval and a postulated period not overlapping said uplink transmission gap interval first match after said downlink transmission gap interval and said uplink transmission gap interval have both ended; and

25 a transmitting section that transmits, at said timing generated by said timing generation section, said outbound propagation path quality information generated

based on said received signal of said measurement reference period not overlapping said downlink transmission gap interval and after said downlink transmission gap interval has ended.

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5. The outbound propagation path quality information transmitting apparatus according to claim 4, wherein said timing generation section comprises:

an uplink status determination section that monitors
10 from beginning to end said uplink transmission gap interval based on extracted said control parameter, and determines whether it is possible to transmit said outbound propagation path quality information in a postulated period for which transmission of said outbound
15 propagation path quality information is assumed in said uplink;

a downlink status determination section that monitors from beginning to end said downlink transmission gap interval based on extracted said control parameter,
20 and determines whether said measurement reference period corresponding to a postulated period for which transmission of said outbound propagation path quality information is assumed does not overlap said downlink transmission gap interval; and

25 a decision section that makes a decision to generate said timing for transmitting said outbound propagation path quality information when results of determination

by said uplink status determination section and determination by said downlink status determination section are both affirmative.

- 5 6. The outbound propagation path quality information transmitting apparatus according to claim 4, wherein said timing generation section comprises:

a scheduled period derivation section that derives a scheduled period for which transmission of said outbound propagation path quality information in said compressed mode is scheduled based on extracted said control parameter;

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an uplink status determination section that monitors from beginning to end said uplink transmission gap interval based on extracted said control parameter, and determines whether said uplink transmission gap interval and said scheduled period or said postulated period do not overlap; and

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a downlink status determination section that monitors from beginning to end said downlink transmission gap interval based on extracted said control parameter, and determines whether said downlink transmission gap interval and said measurement reference period do not overlap; and

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a decision section that makes a decision to generate said timing for transmitting said outbound propagation path quality information when results of determination

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by said uplink status determination section and determination by said downlink status determination section are both affirmative.